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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,908	04/15/2004	Jae-Hong Park	A33914--G- 067515.0172	7609

58027 7590 11/21/2006

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EXAMINER

APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,908	PARK ET AL.	
	Examiner	Art Unit	
	Charles N. Appiah	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 250-322 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 250-322 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 8/12/2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent No. 6,741,866, U.S. Patent Application No. 10/825,281 and U.S. Patent Application No. 10/824,929 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

2. Applicant's arguments filed on 8/12/2005 have been fully considered but they are not persuasive.

With respect to Applicants' argument that "Korpela fails to disclose that a message contains both "core network operating type information and core network information", examiner respectfully disagrees and maintains that Korpela clearly meets the limitation of "core network information" as shown in col. 6, lines 14-24 –'radio access network transmits signals (indicated in Fig. 8) network identifying portion 103 (similar to the PLMN code broadcast in GSM) indicating the identity of each backbone network to which the radio access network is connected....'

In view of the above the rejections using Korpela are maintained and further clarified to account for the newly added limitations. These rejections are made FINAL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 250-252, 254, 258, 259, 262-264, 269, 270, 274-279, 287-289, 294, 295, 299-301, 303, 307, 308, 311-313, 318 and 319, are rejected under 35 U.S.C. 102(e) as being anticipated by **Korpela (5,946,634)**.

Regarding claims 250, 262, 274, 287, 299 and 311, Korpela discloses a method and an apparatus for interfacing among a terminal (10), a radio network (20a-20c) and a core network (30a-30c), connected to the radio network, wherein the terminal has a hybrid operating type (digital signal processor of mobile terminal capable of operating in several modes under control of the control device to selectively interconnect and set up either a voice or data communication session, see col. 3, line 66 to col. 4, line 3) being possible to be set as either a synchronous operating type (GSM network), or an asynchronous operating type (B-ISDN network), the method comprising: recognizing an operating type of the core network on the basis of a core network operating type information (network type 102) and core network information (network ID 103, see Fig. 8), contained in a message (radio access network transmits signals (indicated in FIG. 8) see col. 6, lines ,14 –24), to thereby allow the terminal to operate according to the

recognized operating type of the core network (see Fig. 9, steps 1202-1206, col. 6, lines 29-41).

Regarding claims 251, 263, and 275, Korpela further discloses that after recognizing, storing the recognized operating type of the core network (see col. 6, lines 29-50).

Regarding claims 252, 264, 276, 287, 301, and 313, Korpela further discloses receiving the message having the core network operating type information and core network information through a predetermined channel (mobile terminal receives broadcast signals as transmitted on the broadcast channel, col. 6, lines 14-41 and col. 2, line 66 to col. 3, line 5), extracting the core network operating type information from the received message, and setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network (see col. 6, lines 30-51).

Regarding claims 254 and 279, Korpela further discloses wherein the predetermined channel is a broadcast control channel (use of broadcast access channel to transmit signals, including backbone network type code, see col. 6, lines 14-24).

Regarding claims 258, 259, 269, 270, 283, 284, 294, 295, 307, 308, 318 and 319, Korpela's teaching as illustrated in Figs. 8 and 9 shows the message including a master information block and system information message (see col. 6, lines 14-41).

Regarding claims 279 and 303, Korpela further discloses wherein the predetermined channel is a broadcast control channel (use of broadcast access channel to transmit signals, including backbone network type code, see col. 6, lines 14-24).

Regarding claims 288, 300 and 312, Korpela further discloses that after recognizing, storing the recognized operating type of the core network (see col. 6, lines 29-50).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 253, 265, 277, 278, 290, 302 and 314 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Korpela (5,946,634)**.

Regarding claims 253, 277, 278, 302, Korpela teaches the capability of operating in different modes such as voice (synchronous) or data communication (asynchronous), see col. 3, line 66 to col. 4, line 8), but fails to specifically teach wherein the predetermined channel is a synchronous channel as well as the use of a synchronous channel message. However, since Korpela teaches synchronous transmission capability, those of ordinary skill in the art would have appreciated being able to use the synchronous channel to convey information on the core network type in order to ensure the proper protocol adaptation for a desired communication.

Regarding claims 265, 290 and 314, Korpela further discloses teaches the capability of operating in different modes such as voice (synchronous) or data communication (asynchronous), see col. 3, line 66 to col. 4, line 8), and using of

broadcast access channel to transmit signals, including backbone network type code, (see col. 6, lines 14-24), but fails to explicitly teach that the predetermined channel is a synchronization channel if the radio network is of the synchronous operating type and the broadcast control channel if the radio network is of the asynchronous operating type.

However, since Korpela teaches synchronous transmission capability and asynchronous transmission type, those of ordinary skill in the art would have appreciated being able to use the synchronous channel and the broadcast control channel to convey information on the appropriate core network type in order to ensure the proper protocol adaptation for a desired communication.

7. Claims 255-257, 266-268, 272, 280-282, 291-293, 297, 304-306, 315, 316, 317 and 321, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Korpela** as applied to claims 250, 262, 274, 287, 299 and 311 above, and further in view of **Martinez (6,137,806)**.

Regarding claims 255-257, 266-268, 272, 280-282, 291-293, 297, 304-306, and 315, 316 and 317, Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)) but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Martinez discloses an intelligent which comprises two interconnected areas served by network switching points in which different kinds of TCAP messages such as IS-41 MAP and GSM-MAP for messages from mobiles could be generated or received (see Fig.2, col. 5, lines 41—63).

It would therefore have been obvious to one to include the capability of GSM-MAP as well as ANSI-41 messaging in Korpela's system as taught by Martinez in order to ensure the use of appropriate message signaling protocols for routing voice or data as desired.

Regarding claims 297 and 321, Korpela further discloses including a network identifying portion (similar to the PLMN code broadcast in GSM), indicating the identity of each backbone network to which the radio access network is connected (see col. 6, lines 18-28), while Martinez teaches the use of TCAP messages such as IS-41 MAP and GSM-MAP for messages from mobiles could be generated or received (see Fig.2, col. 5, lines 41—63), but the combination of Korpela and Martinez do not specifically show including a PLMN ID if the radio network is of the asynchronous operating type and the core network operating type information is a GSM information representing an asynchronous type core network.

However, since Korpela shows including a network ID portion and Martinez teaches using GSM-MAP information, it would have been obvious to one of ordinary skill in the art to ensure the inclusion of the appropriate network identification in the combination of Korpela as modified by Martinez in order to ensure the use of appropriate message signaling protocols for routing voice or data as desired.

8. Claims 255-257, 266-268, 272, 280-282, 291-293, 297, 304-306, 315, 316, 317, and 321 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Korpela (5,946,634)** in view of **Lupien et al. (6,389,008)**.

Regarding claims 255-257, 266-268, 272, 280-282, 291-293, 297, 304-306, and 315, 316 and 317, Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)), but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Lupien discloses an integrated radio communication network, which integrates an ANSI-41 circuit switched network and a GPRS packet data network (see title, abstract), wherein the amount of integration is kept as low as possible by maintaining the integrity of each network function and node on both the GPRS side of the interface and the ANSI-41 side (see col. 4, lines 42-63, col. 16, lines 35-51), and includes an ANSI-41 core network (see col. 12, lines 3-21).

It would therefore have been obvious to one of ordinary skill in the art to implement Korpela's multiple protocol communication system wherein a core network operates according to ANSI-41 protocols in order to allow mobile subscribers to access both voice/circuit switched and packet switched services in a flexible manner as taught by Lupien.

9. Claims 260, 261, 271, 273, 285, 286, 296, 298, 309, 310, 320 and 322 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korpela et al as applied to claims 250, 262, 274, 289, 301 and 311 above, and further in view of **3GPP TS 25.331 V3.0.0 (1999-10)**, hereinafter referred to as (the Specification).

Regarding claims 260, 261, 271, 273, 285, 286, 296, 298, 309, 310, 320 and 322, Korpela fails to explicitly disclose wherein the message is represented by a table as set forth in the claims.

The Specification teaches the use of broadcast of system information to broadcast system information elements that are of the same nature in a system information block (see page 24, paragraphs 8.1.1.1-8.1.1.2) and the system information messages contains elements as set forth in the table representing the message (see page 148-163).

It would therefore have been obvious to one of ordinary skill in the art to provide for the use of system information block or master information messages to identify core networks available for call connections as taught by the Specification in order to standardize and effectively ensure connection parameters being available for desired communications.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Korpela (6,801,786) discloses a communication system in which

the connected core networks are given different identifiers for routing protocol data units.

Back et al. (6,505,044) discloses a system for providing Mobility Management in a core network of mobile communication system.

Vialen et al. (6,542,516) discloses a method and system whereby a mobile station can utilize the services offered by different core networks through the interworking of a third generation radio access network.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA


CHARLES APPIAH
PRIMARY EXAMINER